

REMARKS

Claims 1-20 are pending. By this Response, claims 1, 6, 7, 9, 14 and 15 are amended, claim 8 is cancelled and claims 19 and 20 are added.

Reconsideration and allowance based on the above-amendments and following remarks are respectfully requested.

Applicant notes that the Examiner has addressed only claims 1-16. The Office Action does not address the status of claims 17 and 18. Therefore, applicant's presume that claims 17 and 18 are deemed allowable based on the absence of any rejection regarding these claims.

Drawings

The Office Action asserts that a drawing under 37 CFR §1.81 is required to facilitate an understanding of the invention. Applicant has prepared a new figure Labeled as Fig. 1 and has amended the specification to make reference to this new drawing. Applicant respectfully submits that no new matter has been added by the inclusion of the drawing or the amendments to the specification.

§112, First Paragraph Rejection

The Office Action rejects claims 1, 9 and 16 under 35 U.S.C. §112, first paragraph as being based on a disclosure which is non-enabling. This rejection is respectfully traversed.

Specifically, the Office Action asserts that the claim language is not complete and should include the feature of “the average values of the pixels already included into the region” as part of the process for adding pairs of pixels in the region.

Applicant notes that the Office Action is alleging that the disclosure is not enabled yet has stated features found in the disclosure provide clarification of the features recited in the claims. Also, the Office Action requires inclusion of the clarifying features in the claims. Thus, it appears that the disclosure is enabling based on the Examiner’s reasoning. Nevertheless, applicant has amended claims 1 and 9 to include the feature of “the average value of the pixels in the region” to clarify the step of adding pairs to the region as recited in the claims.

Applicant respectfully submits the requirements under 35 U.S.C. §112, first paragraph have fully been met. Accordingly, withdrawal of the rejection is respectfully requested.

§112, Second Paragraph

The Office Action rejects claims 1 and 7 under 35 U.S.C. §112, second paragraph as being indefinite. These rejections are respectfully traversed.

Regarding claim 1, the Office Action asserts that the recitation of “reconstruction of said image” is confusing as compared to the preamble that recites “a method for reduction of noise in an image”. In response, applicant

has amended claim 1 to clarify the language therein. Claim 9 has also been amended in the same manner.

Regarding claim 7, applicant has amended the claim such that the claim now recites “wherein the absolute value of said correlations is at least .8” thus clarifying the correlation value.

In view of the above, applicant respectfully submits that the claims are now in compliance with 35 U.S.C. §112, second paragraph. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim Objections

The Office Action objects to claims 14 and 15 under 37 C.F.R. §1.75(c) as allegedly including multiple dependencies within the same claim. In Response, applicants have amended claims 14 and 15 to clarify the features therein and to place the claims in a proper form. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

Prior Art Rejection

The Office Action rejects claims 6 and 8 under 35 U.S.C. §102(b) as being anticipated by Ito, et al. (U.S. Patent No. 5,485,371). This rejection is respectfully traversed. Applicant notes that claim 8 has been cancelled. Accordingly, the rejection in regard to claim 8 is now moot.

Regarding claim 6, this claim recites, *inter alia*, obtaining a noise reduced value of a second pixel located in a second image, calculating an estimate of the fluctuation of said second pixel, calculating an estimate of the fluctuation of a first pixel located in said first image, wherein said fluctuation of said first pixel is correlated to said fluctuation of said second pixel, obtaining a noise reduced value of said first pixel by subtracting said estimate of the fluctuation of the first pixel from said first pixel and using said noise reduced value of said first pixel in reduction of noise in said first image.

Applicant respectfully submits that Ito fails to teach each of the claimed features recited above. Ito teaches a method for subtracting a plurality of images within a single image into separate images. The noise in the separate images are reduced by a smoothing operation. The smoothed image is then subtracted from the original image. By doing this the extraneous images can be removed from the original image leaving behind the desired image that is of high quality. Ito's system uses its methods for x-rayed images of human tissues. For example, an x-ray can show both the lungs and the rib cage. Thus, the rib cage can be subtracted from the original image. The subtracted rib cage is then processed by a smoothing operation to reduce noise. The smoothed image is then subtracted from the original image. By this subtraction a high quality picture of the lungs remains.

Ito's system does not teach or suggest any calculation or estimation of the fluctuation of the individual pixels within the image in order to reduce

noise. Ito merely states that the smoothing operation is performed and provides no teaching of how such operation is conducted.

Therefore, applicant respectfully submits that Ito fails to teach the specific features of obtaining a noise reduced value of a second pixel located in a second image, calculated in an estimate of the fluctuation of said second pixel and calculating an estimate of the fluctuation of a first pixel located in said first image where said fluctuation of said first pixel is correlated to said fluctuation of said second pixel, as recited in claim 6. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

For at least these reasons, it is respectfully submitted that claims 1-7 and 9-20 are distinguishable over the cited art. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No.

Appl. No. 09/716,253

02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s)